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The Treatment of Gastro-hepatic Dyspepsia at Vichy, Carlsbad, and Cheltenham

BY

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The Treatment of Gastro-hepatic Dyspepsia at Vichy, Carlsbad, and Cheltenham.

By GUSTAVE MONOD, M.D.(Paris), L.R.C.P., M.R.C.S.

MANY a practitioner interested in hydrology must occasionally have felt hesitation when called upon to decide whether a course of spa treatment is appropriate for his patient, and to determine which of many competing stations is the most suitable for that purpose. The problem is, indeed, one of considerable complexity, demanding for its solution an insight, sometimes intuitive, into human temperament, a considerable knowledge of thermal methods, and a sufficient familiarity with climate and topography. In these circumstances it is not surprising that the physician sometimes hesitates, and the patient, even though a typically suitable subject for spa treatment, may leave the consulting-room still in doubt as to its necessity for him, and with the name of the watering-place not definitely settled. So, at any rate, may be interpreted the experience of, I suppose, every spa practitioner. He finds that a notable proportion of his patients arrive without definite medical prescription, and possessed with notions, hazy or erroneous, in matters which *we* deem to be of capital importance. Have I not myself encountered at Vichy a Scotch lady sent there by her doctor to enjoy the "mountain scenery"; and did I not in England meet two medical men who placed that famous resort in Germany? An unconscious tribute to Vichy, perhaps; for in the bad old times now passing away, and under influences now losing force, no good thing thermal could come out of France.

Every important spa has inherited traditions, some of which remain fixed while others are modified under the influence of scientific experiment, though there is ever an inclination towards change at the bidding of mere conjecture. Nevertheless, a solid substratum remains, and evolution is based in the main on clinical observation. It may in fact be said that each spa is a separate school of specialized medicine. But in the literature emanating from these resorts it is difficult to winnow the wheat from the chaff—to distinguish sober clinical fact from fictitious *réclame*. More difficult still is it to form accurate deductions even from

honest analyses; for mineral waters must be regarded as dynamic entities, and the only trustworthy guide to their use is clinical experience, which cannot be learnt from any book. If, therefore, I bring together in this paper three spas in many ways so dissimilar as Cheltenham, Vichy, and Carlsbad, it is solely because patients of the same category may find at each of them the treatment which their condition demands.

Take the list of indications displayed by every station, we shall assuredly find, in bold relief, the word—dyspepsia. And justly so; for should not dyspepsia really be written in the plural, and cannot hydrology in one way or another adapt itself to almost every conceivable requirement? Nevertheless, to alkaline and alkaline sulphated waters preference would commonly be accorded on theoretical grounds alone, and it is sufficiently well known that clinical results have fully justified such selection.

If we were asked for the formula of what is called a “digestive” water, it is more than probable that we should, in the first instance, think of a solution of sodium bicarbonate of medium strength, say five parts per mille; while influenced by recent research we should render the solution isotonic. As for the temperature, it would doubtless be that of the body—perhaps a little higher. The outcome of these efforts would be the manufacture of the water which gushes forth near the banks of the River Allier; or to be more precise, we should have a close imitation, lacking, however, as we hold, that impalpable quality (the *nescio quid divinum* of hydrologists) which gives to natural mineral waters their life and thus their unique merit. To offer a more prosaic conjecture, these qualities may be due to minimal quantities of the other salts in solution, to continuous synthesis, as described by Gautier, to radio-activity—or to some kindred property to be discovered by the Curies of the future. However this may turn out to be, for proof that mineral waters created by Nature herself differ from products of the chemist’s laboratory, I appeal to the testimony of thousands of patients whose united experience dates back for centuries: for to quote President Lincoln’s quaint and pithy phrase, “though you may fool some of the people part of the time, you can’t fool all of the people all of the time.”

I must now ask you to betake yourselves in imagination to the centre of France, to a gently undulating country at the foot of the last spurs of the volcanic mountains of Auvergne. Under the soil there will be found a sheet of bicarbonated water, which has come from far, and doubtless from great depths, emerging here and there in springs, hotter or cooler, and more or less charged with divers salts according to the speed of the

current or the strata traversed in its underground wandering. In the area of this immense basin you have only to put down a drill to tap a fresh spring, while the composition of the waters will display but minor differences. The existing springs, most of them in private hands, number about eighty. But, of those which have brought world-wide fame to Vichy only five or six need be mentioned—the *Sources de l'Etat*—and that because this group includes the most important of the thermal springs, and that every guarantee is given of honest, hygienic, and scientific management. Closely akin to each other, they present some differences, chemical and thermal, capable of definition, but also as we believe differences eluding the ken of the chemist and physicist.

These springs may be classified according to their temperature thus:—

Cold	...	...	...	...	<i>Celestins</i> , 57·2° F.
Tepid	...	...	...	...	... <i>Lucas</i> , 84·2° F.
Warm, less than body heat	...	...	...	...	... <i>Hôpital</i> , 93·2° F.
Hot, greater than body heat	...	...	...	...	<i>Grande Grille</i> , 107·6° F.
"	"	"	"	...	... <i>Chomel</i> , 111·2° F.
Very hot	...	...	...	...	... <i>Dôme</i> , 141·8° F.

Although, as already mentioned, these waters differ but slightly in chemical composition, their effects are often widely dissimilar, and it is a matter of daily experience to find instances in which while one is well borne its neighbour cannot be tolerated.

The following indications are determined by empiricism : *Celestins*, affections of the urinary tract ; *Hôpital*, diseases of the stomach ; *Grande Grille*, biliary lithiasis, congestion of the abdominal viscera, diabetes, and gout ; *Chomel* occupies a position intermediate between the two last mentioned ; *Lucas*, the gouty dermatoses.

Such an ascription as the foregoing possesses a merely relative value. In practice we are guided solely by clinical findings. We regard all these springs, not as table waters, but as active medicaments, to be taken usually in minimal quantities, and always in measured doses ; three glasses (1 pint) being the average amount ingested daily, and that quantity is reached by fractional increases. Baths, massage, and the numerous appliances of our well-known establishment for physiotherapy are simply adjuvants to the treatment.

Without burdening this paper with a complete list of the sources, with their analyses, you may now have an inkling of our conception of the springs, arranged as it were as a therapeutic step-ladder or scale—the famous *gamme* at which our British confrères are tempted to smile.

Special Vichy literature is, alas, so overgrown with trivialities that

it may well give the impression of poverty. I laid stress just now on clinical aspects, to which my remarks will be restricted, and in doing so I desire to disclaim all attempt at originality. The foundations of Vichy practice were well and truly laid fifty years ago. They are immovable. Additions may be suggested, fresh explanations offered, but the main structure, consolidated by clinical observation, must ever remain unshaken. It is not too much to say that upon the work of the great Vichy masters—Claude Fouët (1686), J. F. Chomel (1734), Charles Petit (1842), and Max Durand-Fardel (1851)—all subsequent writers have based their observations; though in their pamphlets there is evidence of undue haste in the omission of tables of references. In this connexion even the authors of that excellent and original work “*Clinique hydrologique*” cannot escape from reproach. But they, at any rate, understand clearly that the reactions taking place in the living stomach differ radically from those of the test-tube, and that neither the classification nor the treatment of dyspepsia can be placed upon a purely chemical basis. Following the classification of Mathieu, they divide primary dyspepsias into three principal types. For each of these types Vichy offers resources, which while meriting the attention of the profession as a whole, should be studied with the closest care by physicians whose opinions are sought when thermal and other methods are to be weighed against each other in the balance. For the physician should be able to reply to these two questions: What will be the nature of the treatment adopted; what the ultimate result to the patient?

Let us then take three patients affected by gastric disorders of common type:—

(1) The first one states that ingestion of food is always followed by painful sensations. After a few mouthfuls his stomach is distended, his face flushes, and he becomes sleepy, but in an hour or two all is well again. If you examine him at the height of the attack you may be surprised to find how scanty are the physical signs. Analysis of the gastric juice discloses hypochlorhydria—less commonly hyperchlorhydria. Such is the clinical picture described by Mathieu as *sensory motor*. Patients of this category are suffering from overwork of the stomach, from excessive feeding, or, often, from abuse of digestive drugs. One of our Vichy springs, Hôpital, taken in small doses, meets both these indications of the case—stimulation of the motor power of the organ, and sedation for the over-sensitive mucosa. Add to that a few baths of indifferent temperature, and you have a sufficient idea of the treatment to which your patient will be subjected. He will return to your care if

not completely cured at any rate greatly benefited—or, to say the least, satisfied that something substantial has been done for him.

(2) Patients belonging to the second category, those suffering from pain some time after meals, come within the province of two other springs, Chomel and Grande Grille. Such patients are classed as “hypersthenic dyspeptics,” and to Soupault we owe a masterly description of their sufferings—“the pyloric syndrome.” The pains, retrosternal in position, are acute, and often followed by vomiting which affords instant relief. They are sometimes purely spasmodic and of nervous origin, or they may be reflex and due to actual gastritis. The sodium bicarbonate water relieves as if by magic, an effect attributed by some writers simply to chemical saturation, though Binet’s analyses tend to prove that it is to be referred to the antispasmodic action of hot gaseous water on the pre-pyloric mucosa. To those who believe, with Hayem, that these disturbances imply a functional defect of the cells of the mucosa, Linossier offers the explanation that Vichy treatment, while stimulating the glands remaining healthy, improves the condition of those which have become impaired, and may even arrest degenerative processes.

(3) The third category of patients includes those whose suffering may be said to be wholly indefinite; appearing at any moment, it is apt to be of considerable duration—characteristics serving, according to Mathieu, to establish the essentially nervous origin of the affection. The invalid, often a woman, insists that pains assail her day and night, and that with an added sense of distension and loss of appetite she has completely lost heart. Sometimes she imposes upon herself a regimen as fanciful as it is irrational; at others she passes into a state of inanition. Arterial tension falls. There is stomach splashing, and the organ is uniformly tender on pressure. Examination of the contents shows sometimes hypo- sometimes hyper-chlorhydria, the lack of precision in all these signs establishing the diagnosis of *nervous dyspepsia*. What resources does Vichy offer in the presence of this symptom-complex? Apart from the advantages of change of environment and of habits, the patient will receive the utmost benefit from the sedative influence of a course of tepid baths, with the times of immersion prolonged. You may well leave to the spa physician the choice of the different waters and the manner of their application, both of which he will arrive at by tentative trial. He may call to his aid the excitosecretory action of a cold spring, or the soothing and eupeptic effects of the Hôpital. Though the treatment is essentially opportunist, such cases furnish some of the most striking triumphs of thermal treatment.

For dyspepsias associated with organic lesions, such as cancer or spreading ulceration, thermal methods are absolutely contra-indicated. Vichy, like Carlsbad, possesses every appliance for rapid diagnosis. Do not send us patients whose treatment will perforce undergo sudden interruption.

Of the secondary dyspepsias—a vast pathological domain still involved in confusion—I must be content with a bare enumeration of those for which spa treatment is efficacious. These are the dyspepsias secondary to ptosis (Glénard's disease), alcoholic or malarial poisoning, obesity, diabetes or gout, and finally, but above all, *biliary lithiasis*.

In the whole chapter of mineral water therapeutics this last affection holds one of the most important positions. It is without doubt one of the chief specialities of the two leading French and Austrian inland watering-places. In both of them, perhaps chiefly at Vichy, clinicians have laid stress on the successes obtained. In calculosis of the gall-bladder the combination of a diathetic and an infective element demands the selection of a spa whose waters both stimulate nutrition and at the same time exercise a specific influence on biliary secretion. Full explanation of the success of Vichy treatment cannot as yet be given, but the results, open to the investigation of all, are decisive.

Let me quote the opinion of Huchard: "Admitting that sodium bicarbonate inclines the bile to alkalinity, a condition necessary for the dissolution of cholesterin, which forms the chief bulk of many of these calculi, there is some other factor at work. We know that biliary lithiasis is mainly of infective origin, and we believe that the influence of Vichy treatment is more potent than that of Carlsbad in combating infection."

Let us now consider the migration of calculi, and first under conditions of asepsis. The primary aim of the treatment is to secure what Gilbert calls "gall-bladder tolerance," and to favour circulation and biliary secretion. We must by no means wait until chronicity has brought in its train sclerosis and finally atrophy of the receptacle. The physician must preserve a light touch and refrain from provoking even the semblance of a crisis, for the object in view is less to favour the passage of a calculus (if one is present) than to soothe the irritation of the extra-hepatic ducts. For such cases also the milder Vichy waters are evidently superior to the more strenuous springs of Carlsbad. If the migration takes place under septic conditions the prudent surgeon, after operative interference, will refer his patient to the spa physician, that the risk of recurrence may be lessened.

I have no intention of referring to hepatic affections in which the indications for spa treatment are less peremptory, but I must say a few words about simple *congestion of the liver*—a condition, according to my observation, commoner among English patients than among any other. Whether it is a clinical entity I know not; but certainly there is no better description of the syndrome than that to be found in the letters on Vichy by the late Max Durand-Fardel, one of the most masterly of French clinicians. Simple engorgement is not of necessity a grave condition, but it is notably chronic and resistant to treatment, and, moreover, it may be precursory to changes of more serious import. Of the effects of spa treatment I do not wish to say more than that in the majority of cases benefit is tangible. Even if there is not always considerable reduction in the size of the organ, it is seldom that the constitutional condition is not greatly improved. Can more be claimed for other therapeutic measures?

Let us pass on to Carlsbad. The two great rival spas are closely linked in the mind of the profession, though a glance at the analysis of the waters would scarcely lead one to suppose them competitors. The Vichy springs belong to the simple bicarbonated group, while Carlsbad water, though containing the bicarbonate, is more complex, chloride and sulphate of sodium being notable constituents. The one water we speak of as *gastro-hepatic*; the other, *gastro-intestinal*. The one is gentle in action, the other energetic. Our treatment is largely opportunist, that of our competitors perhaps more rigidly fixed. Gautrelet has endeavoured to show that in addition to the chemical difference there is one that is physiological. He maintains that Carlsbad water influences defects of nutrition only in the assimilative phase, and fails to deal with their fundamental cause—the “diathesis of hyperacidity.” On the other hand, Vichy waters influence not only errors of nutrition in both of their phases, but, in addition, their joint underlying cause—hyperacidity. Nevertheless, if results were compared, as Renan says, “from the standpoint of Sirius,” they would doubtless be found to be closely approximate.

Internal treatment at the two resorts differs within narrow limits, the average amount of mineral water ingested being nearly the same. At Carlsbad it is taken in the morning and consumed more rapidly, while at Vichy the doses are divided, and spread over the course of the day. They are drunk at Vichy at their natural temperature, whereas at Carlsbad they are cooled down. There is some difference in the balneotherapeutic resources of the two stations. Both possess mineral

water baths, as a matter of course, but Carlsbad has in addition peat baths, which are not as yet known at Vichy. We, on the other hand, employ a form of under-water massage which, I believe, in England is called the Vichy douche, and in addition, a true under-water douche known at Harrogate as "sub-massive," while at Bath it is even more quaintly termed the "wet douche."

The whole question has been thus stated by Dr. Leonard Williams: "In a general way it may be said that a course at Vichy is less severe than at Carlsbad, so that of the two, the former is the better suited to women, and to men of nervous organization. A chemical difference, which in view of Widal's work would seem to be of some considerable importance, is the fact that Carlsbad water contains chloride of sodium to the amount of 2.5 grm. per mille, whereas at Vichy this salt is present in small quantities only—viz., 0.05 per mille. So far as the accessories to the drinking of the waters are concerned, such as baths, massage, electrical and mechanical appliances, Vichy certainly bears the palm, the establishment at this spa being the finest and most luxuriously equipped in the world."

To this may be added the observations of Dr. Neville Wood: "Testing in turn the official springs at Vichy (except Mesdames) they seemed to possess one action in common, that of improving the appetite and increasing digestive competence. This sequence would seem to be a common experience there, and one at once explaining and justifying the fact that at Vichy greater dietetic freedom is accorded to patients than is considered prudent at most of the spas where kindred disorders are treated. True, the ingestion of mineral water at Carlsbad seemed to have no irritative influence, but certainly it failed to whet the appetite and so rendered less irksome the restrictions of the trial regime that had been suggested to me. The experience of invalids coincided with my own. Still, it would be imprudent to attribute the entire difference to the action of the waters, for at the French spa dishes which would be labelled 'rich' by Britons are so admirably served that the 'appetite juice' of even a moderately competent stomach might fairly be trusted to deal with them; while at Carlsbad the simpler varieties of fare were often the more naturally appetizing." According to the same witness "patients at our spa are protected from morbid introspection—they are reminded more often of health than of disease."

And again: "Carlsbad is the type of a strenuous spa, its very atmosphere seeming charged with intensity. No invalid should go there unless he intends to devote himself consistently to the treatment, for otherwise he might feel, and be felt to be, rather in the way."

Thus, in advising your patients you will often find the deciding factor in accessory circumstances. There is an element not to be weighed in the chemical balance, a psychical element evading clinical observation—the temperament of your patient, and his international sympathies. There is also truth in the famous French line which I venture to render—“The manner of giving counts more than the gifts.” Dr. Huggard, whose recent death we so much deplore, has pointed out that mineral waters do not exhaust the therapeutic efficacy of a spa. Add to this that at most Continental spas the period of election for British invalids is the early or the late weeks of summer.

But when armed with all these data, you are on the point of issuing a verdict for Vichy, or for Carlsbad—well—perhaps you will send the patient to Cheltenham after all!

You must allow me, however, to adhere to the Continental point of view—call it bias if you will. You have at Cheltenham waters unique after their kind in England. If they were hot they might, as we conjecture, unite the merits of Vichy with those of Carlsbad.

What account do clinicians give us of Cheltenham? Dr. Archibald Garrod (“*Climates and Baths of Great Britain*”) writes: “In order to give any information as to the therapeutic effects of the Cheltenham waters, it would be necessary to quote the writings of older physicians who practised in the palmy days of the spa, and this I do not propose to do.” Sir Hermann Weber is little more explicit. He says that Cheltenham has been “looked on” (note the past tense) as a special resort for persons suffering from prolonged residence in hot climates and also for many with chronic gouty complaints. More hopefully, Dr. Neville Wood remarks: “For many Anglo-Indians requiring eliminatory treatment Cheltenham is superior to Carlsbad in all but prestige and hotel accommodation. . . . Cheltenham has, in being available at all seasons, an important advantage over its Continental competitors, which are at their best only in the early part of the summer.” It is evident, then, that this writer also is not prepared to lay down precise indications for the use of the waters in gastro-hepatic disease, for from the context it appears that he has in mind persons suffering from minor disturbances incidental to protracted sojourn in tropical climates.

But what do the practitioners of Cheltenham (a town originally made by its mineral waters) claim for these promising springs? Examining a record of their writings, I notice that they never refer to Cheltenham waters. Here, then, is a resort, beautifully situated, attractively laid out, enjoying a genial climate, possessing interesting traditions, and endowed

with varied mineral waters of the highest promise; yet failing in that modern essential for a serious spa—precise clinical indications for the employment of its hydrological resources. Cheltenham awaits her prophet!

Note.—Since writing this paper my attention has been called to a pamphlet on Cheltenham waters, which, though undated and unsigned, has, I am informed, been issued with the approval of resident medical practitioners. Though leaving something to be desired on the score of precision it is only fair to quote verbatim the principal paragraph relating to indications, which runs as follows:—

In what diseases then are the Cheltenham Waters beneficial? Primarily in that ever-increasing class of auto-intoxications in which poisons are manufactured in the alimentary tract as the result of faulty digestion, fermentation and putrefaction. In such cases the waters of the Lansdown Terrace or Chadnor Villa Wells effect lavage of the entire gastro-intestinal tract, washing away bacteria, toxins, mucus, and fermenting food. Thus by their eliminative action they favourably affect diseases caused by faulty or imperfect metabolism such as gout, and diabetes, and also help the liver in its onerous duties of arresting and converting into harmless products the poisons introduced into the alimentary canal or manufactured there as the result of bacterial activity. Clinical evidence proves these waters to be beneficial to those who suffer from the deleterious effects of residence in hot climates, and in the usually tedious convalescence following attacks of dysentery, Malta fever, or sprue. They are also very serviceable in eczema and skin affections of a gouty origin. In some kidney affections they have been found useful as well as in cases of chronic rheumatism.

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